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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,035	02/26/2004	Juei Tsang Hsu	3313-1122P	2924
2292	7590	12/28/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			LEBRON, JANNELLE M	
			ART UNIT	PAPER NUMBER
			2861	

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

KA

Office Action Summary	Application No. 10/786,035	Applicant(s) HSU ET AL.	
	Examiner Jannelle M. Lebron	Art Unit 2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>02/26/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Ahne et al. (US Patent 6,637,853).

Regarding claim 1, Ahne et al. discloses an apparatus for detecting faulty nozzles comprising:

a printing unit (4 in figure 1), which contains an inkjet component with a plurality of nozzles (as seen in figure 2) for printing a predefined test pattern (6 in figure 3) consisted of a plurality of blocks, each of which corresponds to each one of the nozzle (column 3, lines 12-15; lines 64-66);

a scanning unit (16 in figure 1), which scans the predefined test pattern to generate an image thereof (column 3, lines 17-23);

an analyzing unit (18), which analyzes the image of the predefined test pattern to determine the locations of faulty nozzles and returns the result to the printing unit so

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that normal nozzles are used to compensate for the faulty nozzles in subsequent printing (column 5, lines 36-61; column 7, lines 12-15).

Regarding claim 2, Ahne et al. discloses an apparatus for detecting faulty nozzles further comprising a memory unit (20), which stores the image of the predefined test pattern scanned by the scanning unit and sends the image to the analyzing unit for the analyzing unit to determine which nozzle is faulty (column 6, lines 41-43).

Regarding claim 3, Ahne et al. discloses an apparatus for detecting faulty nozzles wherein the scanning unit (16) is an optical scanner (column 3, lines 17-18; column 5, lines 24-35).

Regarding claim 4, Ahne et al. discloses an apparatus for detecting faulty nozzles wherein the analyzing unit (18) contains a microprocessor (column 3, lines 24-26).

Regarding claim 5, Ahne et al. discloses an apparatus for detecting faulty nozzles wherein the analyzing unit (18) establishes a mask containing all of the faulty nozzles and returns the mask to the printing unit so that normal nozzles are used to compensate for the faulty nozzles in subsequent printing (column 6, lines 34-40; column 7, lines 12-14).

Regarding claim 6, Ahne et al. discloses a method for detecting faulty nozzles used in a scanning unit (16 in figure 1) and a connected printing unit (4 in figure 1) with an inkjet component with more than one nozzle (as seen in figure 2), the method comprising the steps of:

printing a predefined test pattern (6 in figure 3) corresponding to the nozzles on the inkjet component (column 3, lines 12-15);

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sending the predefined test pattern (6) to the scanning unit (column 4, line 63 – column 5, line 4);

scanning the predefined test pattern (6) to generate an image thereof (column 3, lines 17-23);

analyzing the image of the predefined test pattern (column 5, lines 36-61; column 7, lines 6-10); and

returning the analysis result to the printing unit (4) so that the normal nozzles are used to compensate for the faulty nozzles in subsequent printing (column 7, lines 12-15).

Regarding claim 7, Ahne et al. discloses a method for detecting faulty nozzles wherein the step of printing a predefined test pattern (6) corresponding to the nozzles on the inkjet component prints the predefined test pattern (6) using the printing unit (column 4, lines 63-64; column 5, lines 8-11).

Regarding claim 8, Ahne et al. discloses a method for detecting faulty nozzles wherein the step of scanning the predefined test pattern (6) to generate an image thereof scans the predefined test pattern (6) using the scanning unit (column 3, lines 17-23).

Regarding claim 9, Ahne et al. discloses a method for detecting faulty nozzles wherein the step of scanning the predefined test pattern (6) to generate an image thereof is followed by the step of storing the image of the predefined test pattern (column 6, lines 41-43).

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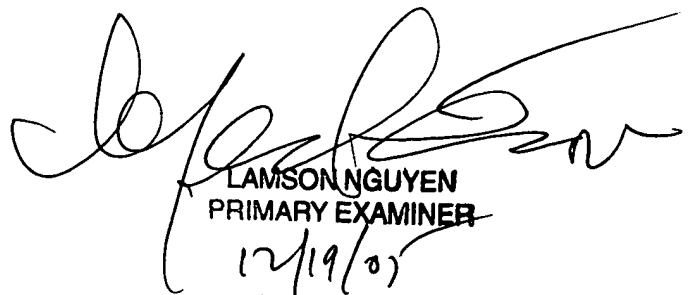
Regarding claim 10, Ahne et al. discloses a method for detecting faulty nozzles wherein the step of analyzing the predefined test pattern (6) determines the faulty nozzles from the blank blocks in the predefined test pattern (column 4, lines 5-57).

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jannelle M. Lebron whose telephone number is (571) 272-2729. The examiner can normally be reached on Monday thru Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Talbott can be reached on (571) 272-1934. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JML
12/16/2005


LAMSON NGUYEN
PRIMARY EXAMINER
12/19/05